The Impact of Digital Technology on Sales in the Secondary Real Estate Market

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Abstract. With the rapid advancement of digital technology, the traditional real estate industry is undergoing a profound digital transformation. This paper focuses on the secondary real estate market, systematically examining the impacts and transformations digital technology has brought to its sales models and internal management. Research findings indicate that in the sales process, with the emergence of online real estate platforms, social media marketing, and big data algorithms, digital technology has reshaped the processes of property listing dissemination, customer reach, and precise matching. This transformation has significantly enhanced transaction efficiency and altered consumers' decision-making paths. In the management process, the application of technology has given rise to new business models such as channel visualization and remote working, driving management approaches towards greater refinement and flexibility. However, the deep integration of technology has also brought about new challenges, mainly in capacity building for data-driven decision-making. Based on the above research results, this paper proposes that real estate enterprises should not blindly follow the trend but should adopt differentiated digital transformation strategies in line with their market positioning, thereby building new core competitiveness in an era of market saturation. This study provides practical reference ideas for enterprises to carry out related practices by analyzing from an overall perspective how digital technology is reshaping the second-hand housing market.

Keywords: Digital technology, secondary real estate market, sales.

1. Introduction

As digital technologies deeply penetrate all industries, the real estate sector—a vital pillar of the national economy—is undergoing a critical transformation from “incremental expansion” to “stock-based operations” and from “financial attributes” to “residential and service attributes.” The secondary real estate market exhibits particularly pronounced changes. Traditional resale practices long relied on offline models like “referral systems,” “mass marketing,” and “synergy between new and resale sales,” suffering from information silos, inefficient customer outreach, and unclear supply-demand matching. Internal management was also constrained by one-way channels and fixed office models, hindering rapid market responsiveness. However, with the rapid advancement of technologies like the internet, big data, and social media, new models have emerged. These include online real estate platforms (such as Beike and Lianjia), short video/live streaming marketing, and algorithmic precision matching. These technological innovations not only reorganized the dissemination methods of housing information and the decision-making paths of consumers, but also promoted reforms at the management level, including practical forms such as channel visualization operation and remote working mode. At the same time, they also brought new obstacles, such as enterprises' insufficient ability to make data-driven decisions, and algorithmic failures caused by blind transformation without proper planning.

In this context, this study focuses on the impact of digital technology on the sales and management of the second-hand housing market, systematically analyzing the mechanism of technology in reshaping sales channels, changing the housing selection patterns of consumers, and optimizing the internal management system of enterprises.

This research not only fills the research gap in the field of "digital technology and the second-hand housing industry integration", provides a holistic perspective for understanding the digital transformation of this industry, but also offers reference for differentiated transformation strategies for second-hand housing enterprises of different scales and market positioning. Through this research, it can help relevant enterprises break through development bottlenecks, build core competitiveness in the era of real estate stock market, and has important theoretical value and practical significance for promoting the entire second-hand housing industry to achieve operational upgrading towards refinement and intelligence.

2. Impact of Digital Technology on Real Estate Sales

2.1. Changes in Sales Channels and Methods

The concept of real estate encompasses both physical and legal attributes. Physically, it refers to land and permanent fixtures attached to it, such as residential properties, commercial shops, industrial plants, and office buildings. From a legal perspective, it is manifested as a series of legal rights attached to these physical assets [1]. Within the real estate circulation system, the evolution of the transaction path is gradually reshaping the industry ecosystem. Driven by the continuous penetration of digital technology and changes in consumer behavior, the real estate transaction model has undergone profound transformation - from being dominated by offline operations to being coordinated online, and from having scattered information to sharing data.

In the early stage of the development of the real estate industry, it highly relied on offline physical operations and mainly adopted the following methods: The first one was referral marketing, which was the core strategy of the industry at that time. Its essence was to leverage the satisfaction and loyalty of existing customers, attract potential homebuyers through word-of-mouth recommendations, and form an efficient viral growth model [1]. The effectiveness of this method largely depended on the professional ability and sales communication skills of the brokers, and required the support of various links, including the ability to build a good reputation. This model was mostly seen in small private real estate enterprises, usually relying on one-way interpersonal communication. The second one was mass marketing. As an innovative distribution strategy led by real estate enterprises, its core logic lies in integrating and mobilizing all available social channels and human resources to make them a way for the project to acquire potential customers. By establishing an open referral network, this strategy incorporates internal employees, industry chain partners, affiliated entities, media members, and even individual members of the public. It leverages their social capital to generate client referrals for the project to incentivize participation, the company establishes a clear incentive mechanism, paying referrers a specific percentage commission based on the final transaction outcome of referred clients. This approach aims to maximize the project's customer base, increase visitor traffic, and ultimately convert these leads into sales performance. [2]. The third marketing model, distinct from primary-secondary market linkage, builds an efficient distribution channel by integrating brokers' extensive offline store networks and client resources. Under this model, brokers handle new project promotion and customer traffic generation, guiding potential buyers to sales offices for transaction completion. This significantly boosts developers' sales efficiency and brokers' resource monetization capabilities. The primary-secondary linkage not only achieves complementary resource advantages but also drives synergistic optimization of business processes. From a marketing theory evolution perspective, it represents a deepening and refinement of the “mass marketing” model. It transforms broadly dispersed, non-systematic social referrals into structured, organized professional channel partnerships, achieving a breakthrough from broad coverage (“area”) to precise targeting of specialized channel nodes (“point”). This innovation not only expands developers' customer acquisition channels and reduces marginal marketing costs but also provides new profit growth points for the brokerage industry, embodying the practical application of platform economy and sharing economic concepts in real estate [2].

However, with the rapid advancement of digital technology, real estate sales strategies must also evolve. While retaining some traditional methods, most sales activities are shifting toward online channels and marketing. This has spawned a series of virtual home viewing apps (Ke Holdings; Lianjia; Anjuke) that leverage internet real estate platforms and social media for online sales.

Professional real estate platforms aggregate vast property listings, attracting numerous potential clients for browsing and inquiries. Developers leverage social media platforms like Douyin and WeChat to showcase property information through short videos and live streams, interacting with clients to overcome geographical limitations and expand their customer base. In recent years, the secondary housing market has witnessed a trend toward direct sales, where homeowners connect directly with buyers via social platforms to save on brokerage fees. This reflects dissatisfaction with traditional brokerage services and shifts in market supply and demand.

2.2. Impact of Big Data Algorithms and Social Media

Taking into account the changes in the sales field mentioned earlier, the current application of big data algorithms mainly lies in various real estate sales applications. The deep integration of big data algorithms with social media has fundamentally changed the marketing model of the real estate industry. As a core technical support, big data algorithms rely on machine learning models to conduct multi-dimensional analysis of user behavior data (search records, duration of stay, preference for collection), property listing attributes data (location, floor plan, price), and macro market data, thereby achieving three core functions: Firstly, through the construction of precise user profiles, personalized property recommendations and matching are completed, significantly improving transaction efficiency; Secondly, dynamic price predictions are realized, based on historical transaction data and market supply and demand conditions, an intelligent assessment model is established, effectively enhancing price transparency; Thirdly, sales resources are optimized, the algorithm sorting mechanism will prioritize increasing the exposure of high-quality properties and highly-rated real estate agents, promoting the improvement of platform resource allocation efficiency.

Social media, with its powerful network effect and content dissemination capabilities, has injected new vitality into real estate sales. Practice has shown that widely disseminating information related to corporate social responsibility (CSR) on social media platforms can not only effectively enhance the public reputation and brand image of the enterprise, but also significantly promote the generation and spread of positive electronic word-of-mouth (eWOM) [3].On one hand, social media platforms (such as WeChat, Douyin, and Xiaohongshu) have become crucial traffic entry points and user engagement channels for property-selling apps. Through methods like influencer sales, short-video property tours, and live-streaming traffic diversion, they achieve viral dissemination, drastically reducing customer acquisition costs. Emerging marketing models, exemplified by live-streaming sales, have become key drivers of online consumption. This influence is reflected in macroeconomic data: In 2019, China's nationwide online retail sales surged by 16.5% to reach 10.6324 trillion yuan, surpassing the ten-trillion-yuan threshold for the first time. This clearly demonstrates the formidable impact of digital technology [4]. Meanwhile, the community-based word-of-mouth ecosystem fostered by social media—such as homeowner groups, property reviews, and homebuying strategy sharing—profoundly shapes consumer decision-making pathways. User-generated content and social trust endorsements effectively mitigate information asymmetry.

The synergistic effects of these two forces are forging a new generation of real estate sales models: algorithm-driven property-selling apps capture traffic from social media, enabling precise matching and transaction conversions, while social media reinforces engagement through continuous content operations and community interaction. This dual-engine model of “algorithm + social” not only enhances transaction efficiency in home sales but also digitally reconstructs the trust system and value chain within the real estate industry.

2.3. Shifting Customer Selection Patterns

Younger generations don't like single purchasing channels anymore. They are more interested in quick solutions that can accurately meet their personalized needs. Property viewing apps show this change well. Customers can directly put in the criteria they want and then get customized lists of properties. After that, they can contact agents offline to arrange to see the properties. Compared with old sales models, this approach saves time for real estate professionals because it gets rid of the need for repeated communication to find out which properties clients want. Instead, algorithms driven by data can precisely make the property lists fit the clients' needs. For buyers, this can greatly reduce the waiting time. This selection model can significantly reduce the time costs for both sides. And for younger buyers who don't have much experience, the solutions provided by apps can directly fill the information gaps. Customers can compare different apps via social media to evaluate their respective strengths and weaknesses.

3. Impact of Digital Technology on Real Estate Industry Management (Staff, Operations)

3.1. Channel Visualization

The application of digital technologies such as big data, cloud computing, and the Internet of Things (IoT) provides robust support for corporate R&D activities by analyzing vast amounts of environmental data, significantly enhancing innovation efficiency [5]. Property origins and sources, including contact information for various buyers, can now be traced online. This shifts away from traditional one-way communication channels. This transformation enables management to accurately assess channel effectiveness, promptly identify and respond to market changes, thereby enhancing channel management efficiency and decision-making rigor. Simultaneously, visualization tools reduce internal communication costs, increase cross-departmental collaboration transparency, and drive real estate enterprises toward refined, intelligent channel management.

3.2. Adjusting Management Strategies to Prioritize Online Employee Operations

Most real estate sectors have introduced online home-based services. In the digital transformation of real estate, “online employee service delivery” transcends mere information transfer, representing a multidimensional, systematic interaction process. Specifically, it refers to professionally trained real estate employees utilizing remote communication technologies (such as instant messaging, video conferencing, VR property tours, and online document collaboration) to explain transaction-related procedures, regulations, risks, and rights to clients, while guiding them through the completion of online agency services. However, this approach is predominantly used by smaller companies. For large real estate enterprises, given their greater resources and broader market reach, premium office spaces remain their preferred choice. Such spaces not only meet their demand for large, multifunctional environments capable of accommodating diverse functions but also provide expansion flexibility for future growth. On the other hand, smaller companies prioritize cost efficiency and utility, making them more interested in unconventional office types as an alternative solution to cost challenges [6]. Simultaneously, this approach enhances employee choice by offering diverse working arrangements. It provides options for employees to select their preferred setup rather than a one-size-fits-all viewing experience. It also indirectly offers customers more customized solutions, allowing them to choose between online or offline options.

4. Impact

In the fast development of digital technology, traditional marketing methods are becoming less useful for getting the attention of customers in different industries. So, companies have begun to use personalized digital marketing systems. For example, Douyin (also known as TikTok) is a platform that centers on content and uses algorithms to recommend videos directly to users. Its recommendation system mainly depends on collecting a large amount of user behavior data. The platform can effectively gather various user interaction details like how long users watch videos, the number of likes, shares, and comments, and then build complete user response data sets. By using advanced machine learning methods, Douyin carefully analyzes the past user behavior patterns and creates accurate models to precisely understand individual preferences. This system not only recommends highly relevant video content to users but also improves the personalized discovery and distribution of marketing content a lot. For companies, this allows them to target customers more accurately, reach those who really need their products or services, and lower marketing difficulties. However, if the digital transformation is too fast, it can also cause negative effects. The digital transformation in the real estate industry relies a lot on in-depth research of customers. Digital marketing, without multi-dimensional data tags, may result in a situation where the understanding of users is not deep enough. This can lead to ineffective algorithmic recommendations and the creation of personalized content without a clear aim and finally prevent efficient lead conversion and customer life cycle management. Therefore, each industry should make reasonable decisions according to its own specific situation when it comes to digital marketing, instead of just following the trends blindly.

5. Strategic Recommendations

Data from the National Bureau of Statistics indicates that from 2015 to 2022, China's commercial housing sales revenue showed an overall fluctuating upward trend. During the same period, the real estate sector's value-added contribution to Gross Domestic Product (GDP) consistently remained within the 5% to 7% range, solidifying its position as a vital component of the national economy. This underscores the real estate industry's enduring significance in China's economic development, representing an indispensable link within the broader economic ecosystem [7,8]. Advancing digital transformation is an inevitable path for real estate enterprises to enhance their core competitiveness. This process not only requires companies to complete foundational IT infrastructure to achieve operational data integration and visibility but also demands systematic improvement of organizational technical capabilities to ensure effective implementation of transformation strategies and sustained innovation [9].

Currently, China's real estate sector is undergoing a profound shift from “incremental expansion” to “stock operation” and from “financial attributes” to “residential and service attributes.” Simultaneously, the rapid advancement of digital technologies provides critical tools for overcoming challenges and reshaping value. Therefore, the industry can initiate transformation through: - Digitalization of marketing and sales - Intelligent product design and construction - Smart asset and property management - Upgrading talent structures. These approaches are achievable for enterprises of all sizes. In this era of increasingly accessible digital technologies, the industry can shift focus beyond marketing. Instead, it can leverage diverse algorithms and technologies to refine specific steps within the industrial chain. Examples include using large-scale algorithmic models to precisely target more housing types, harnessing internet resources to collect extensive data and identify multi-skilled talent or employing various technologies to reduce construction costs and enhance customer satisfaction—rather than solely directing digital technologies toward end-users.

However, this does not imply that all real estate sectors require transformation. The primary positive impacts of China's digital economy have centered on residential and newly constructed commercial housing, with limited spillover effects on high-end residential and office markets, while other commercial property sectors have seen negligible influence [10]. Consequently, only a minority of real estate sectors require significant transformation, while others face comparatively minor impacts.

6. Conclusion

This study systematically analyzes the profound transformations digital technology has brought to sales and management in the secondary real estate market. The analysis demonstrates that digital transformation is no longer optional but an inevitable trend in industry development.

At the sales level, digital technology has fundamentally restructured traditional models like “referral marketing” and “mass marketing” through online platforms, social media, and big data algorithms. A major change in the way things work has been brought about. It has shifted from simply spreading information in one direction to having two-way exchanges, and from rough matching to making precise suggestions. The "algorithms + social" model with two key aspects not only improves the efficiency of matching properties to clients considerably and reduces the costs of gaining new customers but also reforms the ways consumers make decisions by creating digital reputation and trust systems. In terms of management, digital technology has made channel management more visible and diversified the business models of employees. Enterprises can now evaluate how effective channels are and understand market changes more accurately. At the same time, flexible methods like working remotely and handling services online optimize the allocation of resources, make organizations more resilient, and provide more personalized choices for both employees and customers. However, this study also indicates that digital transformation doesn't occur quickly. Its success depends mainly on having a solid foundation of high-quality data and precise strategic positioning. If an enterprise blindly pursues technological forms while ignoring the basic aspects of its business, it may lead to ineffective recommendation algorithms and faulty management decisions. Therefore, enterprises must adopt transformation strategies that are different from each other and carried out in stages, based on their specific market segments (such as residential and commercial properties) and the resources they possess. They also need to integrate technology applications deeply with their core business processes. In conclusion, digital technologies are driving the secondary real estate market to change from growing in a broad and extensive way to operating in a refined and service-oriented manner. Future competition will not focus just on how resources are distributed but will instead center on competition within an ecosystem that is based on data, algorithms, and user experience. How to take the lead in this transformation and achieve a good cycle where technology empowers the business and business innovation occurs will be the core challenge that all market participants must face.

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